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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,284	11/22/2000	Hun Gun Park	YHK-057	2061

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EXAMINER
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KEANEY, ELIZABETH MARIE

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/717,284

Applicant(s)

PARK, HUN GUN

Examiner

Elizabeth Keaney

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-5 and 10-14 is/are allowed.
- 6) ☒ Claim(s) 6-9 and 15-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Receipt is acknowledged of the Amendments and Remarks filled 17 June 2004.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 6-9 and 15-24 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 9,20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Ebihara et al. (US Patent 6,600,265; hereinafter Ebihara).

Re claim 9: Ebihara discloses, in figure 1 and throughout the disclosure, a plasma display panel (1), comprising:

- an upper substrate (2);
- a protective layer (6) provided at a rear side of the upper substrate (2);  
and
- a display region comprising a plurality of discharge cells coexisting with a non-display region provided at an outer periphery of the display region, wherein the protective layer is provided only on the display region so as to cover substantially the entire display region (column 4, lines 63-65).

Re claim 20: Ebihara discloses, in figure 1 and throughout the disclosure, a plasma display panel (1), comprising:

- a display area comprising a plurality of discharge cells (column 1, line 42);  
and
- a non-display area provided at an outer periphery of the display area,
  - wherein a protective layer (6) is provided on an upper substrate (2) only in the display area so as to cover substantially the entire display area (column 4, lines 63-65).

Re claim 21: Ebihara discloses, in figure 1 and throughout the disclosure, the protective layer (6) formed at a rear side of the upper substrate (2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8,15-19,23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinoda et al. (US Patent 5,674,553; hereinafter Shinoda) in view of Makino (US Patent 6,259,505).

Re claim 6: Shinoda discloses, in figure 1 and throughout the disclosure, a plasma display panel, comprising:

- a sustaining electrode pair (X,Y) of transparent conductive material (column 9, line 60) provided on an upper substrate (11);
- a plurality of barrier ribs (29) formed on a lower substrate (21) in a direction crossing the sustaining electrode pair (X,Y); and
- a display region (EU) comprising a plurality of discharge cells (column 3, line 30) coexisting with a non-display region (the region outside the defined display region EU) provided at an outer periphery of the display region.

However, Shinoda fails to teach or fairly suggest black matrices provided in the non-display region.

Makino discloses the use of a black matrices provided in the non-display region of a plasma display panel (figure 8a, 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide black matrices at the non-display region of the plasma display panel disclosed by Shinoda because it prevents light from migrating into the non-display region and thereby improves the clarity and contrast of the image displayed (column 13, lines 56-59).

Re claim 7: Makino discloses, in figure 8a and throughout the disclosure, the black matrices arranged in parallel to the plurality of barrier ribs (65).

Re claim 8: Makino discloses, in figure 8a and throughout the disclosure, black matrices formed at each longitudinal end of the plurality of barrier ribs in the direction crossing the plurality of barrier ribs (65).

Re claim 23: Makino discloses only the non-display region is provided with black matrices for shutting out light (column 14, lines 46-48).

Re claim 15: Shinoda discloses, in figure 1 and throughout the disclosure, a plasma display panel, comprising:

- a display area (EU) comprising a plurality of discharge cells (column 3, line 30); and

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- a non-display area (the area defined outside the EU area) provided at an outer periphery of the display area.

However, Shinoda fails to teach or fairly suggest black matrices provided on one of an upper or lower substrate in the non-display area and configured for ~~on~~ non-transmission of light.

Makino discloses the use of black matrices provided on one of an upper or lower substrate in the non-display area and configured for <sup>non</sup>~~on~~-transmission of light within a plasma display panel (figure 8a, 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide black matrices at the non-display region of the plasma display panel disclosed by Shinoda because it prevents light from migrating into the non-display region and thereby improves the clarity and contrast of the image displayed (column 13, lines 56-59).

Re claim 16: Shinoda discloses, in figure 1 and throughout the disclosure, a plurality of barrier ribs (29) formed on the lower substrate (21).

Makino discloses, in figure 8a and throughout the disclosure, the black matrices arranged in parallel to the plurality of barrier ribs (65).

Re claim 17: Makino discloses, in figure 8a and throughout the disclosure, the black matrices formed at each longitudinal end of the plurality of barrier ribs in a direction crossing the plurality of barrier ribs (65).

Re claim 18: Shinoda discloses, in figure 1 and throughout the disclosure, the plasma display panel further comprising:

- an upper substrate (11); and
- a sustaining electrode pair (X,Y) provided on the upper substrate,
  - wherein the plurality of barrier ribs (29) extend in a direction crossing the sustaining electrode pair (X,Y).

Re claim 19: Shinoda discloses the sustaining electrode pair comprising a transparent conductive material (column 9, line 60).

Re claim 24: Makino discloses the black matrices provided on one of the upper or lower substrate only in the non-display area (column 14, lines 46-48).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ebihara as applied to claim 20 above, and further in view of Makino.

Ebihara shows all the limitations above.

However, Ebihara fails to teach or fairly suggest black matrices provided on one of the upper substrate or a lower substrate of the plasma display panel.



Makino discloses the use of black matrices on one of the upper or lower substrate of a plasma display panel (figure 8a, 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide black matrices provided on one of the upper substrate or a lower substrate of the plasma display panel disclosed by Ebihara because it prevents light from migrating into a non-display region and thereby improves the clarity and contrast of the image displayed (column 13, lines 56-59).

### ***Allowable Subject Matter***

Claims 3-5 and 10-14 are allowable over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter: as set forth in the previous Office Action.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent 6,275,273 discloses the use of black matrices in the non-display regions of a plasma display panel.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday-Thursday 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER